GLOSSARY

TERM	DEFINITION
application server	A centralized computer on a LAN that provides application software for the network.
backbone	The major transmission path for a packet data network (PDN). It is the high-density connectivity portion of any communications network.
bandwidth	The difference between the limiting frequencies of a continuous frequency band.
BNC	A bayonet-locking connector for miniature coax; BNC is an acronym for bayonet-NeilI-Concelman. It is used for RG-58 or RG-59 sizes of coax.
bridge	Devices that connect LANs at the data-link layer of the Open Systems Interconnection (OSI) model. Major function is to forward and filter packets, depending upon their destination addresses. A device that connects different LANs so a node on one LAN can communicate with a node on another LAN.
broadcast	1. Transmission of a message intended for general reception rather than for a specific station. 2. In LAN technology, a transmission method carrier sense multiple access/collision detect (CSMA/CD) used in bus topology networks that sends all messages to all stations even though the messages are addressed to specific stations.
brouter	A device with the combined capabilities of a bridge with data handling functions of a router. Typically, a brouter will route one protocol, such as internet protocol (IP), and bridge all other traffic. Generally it is used when there is a mix of homogenous LAN segments with two very different segments.

TERM	DEFINITION
bus	One or more conductors or optical fibers that serve as a common connection for a related group of devices.
cable conduit	A pipe or tube used to protect one or more cables going from one place to another.
cable tray	An open-top channel used to support and route cables.
circuit switched	This connection is similar to standard voice lines. The communication path is fixed for the duration of the connection. The sending computer would initiate a call via a modem to the receiving computer, transfer the data, and then terminate the link. This is a dedicated circuit for the entire session.
client-server	In a communications network, the client is the requesting machine and the server is the supplying machine.
closed system	A network which does not interoperate with networks of a different vendor. It is a vendor proprietary system.
coax	“CO-AXial,” a type of cable with a conductive coating (foil or braid) surrounding an insulated center conductor. It is used to carry high-frequency signals.
collapsed backbone	The backplane in a hub which contains the backbone bus for the input/output (I/O) modules of the hub.
communications closet	An enclosure where communication interconnect patch panels and networking connection equipment are located.
communicating devices	A device used in the electronic connection of a network.

TERM	DEFINITION
communications server	A computer that controls one or more modems or terminals, provides protocol conversion, or acts as a gateway to other networks.
concatenate	The connection or linking of a series.
connectionless	A service in which data is presented, complete with a destination address, and the network delivers it on a best effort basis, independent of other data being exchanged between the same pair of LAN users.
connection-oriented	A service in which a connection-setup procedure must be implemented before data can be exchanged between two LAN users. This often includes ensuring that data packets will be delivered in order, without loss or duplication. If a minimum level of service cannot be maintained, the connection is automatically terminated.
database server	The database operations are performed on a centralized server. Where databases are stored on the LAN.
dc resistance	The resistance of a circuit with no alternating current (ac) components. Resistance to an unchanging current, no reactance.
de facto	The exercising of power as if legally constituted. Standardized by way of widespread use.
dielectric	Any substance in which an electric field may be maintained with zero of near-zero power dissipation; a nonconductive material.
directory	Directories represent the path established to store and retrieve the actual files off the storage media.

TERM	DEFINITION
distributed processing	An arrangement that allows separate computers to share work on the same application program. In a distributed processing system, a program executes tasks on many processors spread around the network.
E-mail, Electronic mail	Electronic Mail refers to messages sent between subscribers electronically via a public or private data communications system. LAN users can send mail to a single recipient or broadcast it to multiple users on the system.
E-mail server	A computer that receives stores, and forwards electronic mail, either to other E-mail servers or to the LAN user.
EIA/TIA	Electronics Industries Association/ Telecommunications Industry Association. USA trade organizations that issue standards and contribute to the American National Standards Institute.
engineering drawing	The floor plans of buildings drawn to scale and showing details of internal structures, such as walls and doorways.
Ethernet	A de facto standard, developed first by Xerox and then sponsored by Xerox, Intel, and DEC. An Ethernet LAN can use twisted-pair (TP), fiber optic, or coaxial cables. Ethernet is used to designate Institute of Electrical and Electronics Engineers (IEEE) 802.3 compliant networks.
expansion bus	The portion of the computer design for adding capabilities, such as the printer controller, disk controller, or network interface card.

TERM	DEFINITION
fax server	A dedicated communication personal computer (PC) for providing the network with the ability to share incoming and outgoing facsimile transmissions.
fiber optics	A fiber optic cable consists of a strand of fiber material, usually glass, inside of a protective jacket. Signals are transmitted in the form of light pulses.
file server	The file server is the central node that provides network services found in the network operating system. The server which provides bulk storage of user files.
gateway	Often the gateway changes the format of the messages to conform to the applications program at the receiving end. This allows networks with totally incompatible protocols to communicate.
hardware	Equipment (as opposed to a computer software) such as mechanical, electrical, magnetic, or electronic devices.
high-speed router	A device that sorts packets of information on a network and forwards to the correct network. Routers can translate between a wide variety of cable and signaling schemes.
hub	The hardware equipment used at the center of a star topology network or cabling system. The hub can be active or passive. An active hub serves as a repeater to other LANs and will amplify as well as recondition the signal. A passive hub provides no amplification and contains no intelligence like the active hub.
hybrid cable	A cable containing more than one type of medium, typically, unshielded twisted-pair (UTP) and fiber optic.

TERM	DEFINITION
index of refraction	The ratio of the velocity of light in free space to the velocity of light in a given material.
information drop	A wall or floor plate where users connect telephone or network equipment to the building's communications infrastructure.
intelligent hub	The hardware equipment used at the center of a star topology network or cabling system with inherent remote management capabilities.
interconnection	The linking together of interoperable systems.
internetwork	A set of interconnected, logically independent networks. The constituent networks are usually administrated separately and may be composed of different transmission media.
interoperable	The ability of software and hardware on multiple machines from multiple vendors to communicate meaningfully.
intranetwork	Within the boundaries of a local network.
jabber packet	An over length Ethernet packet (greater than 1518 bytes long).
Kevlar	A fibrous material of very high strength.
local bridge	The local bridge directly connects two LAN cable segments. Bridges use tables to decide whether to pass or hold data messages (similar to routers).
login	The procedure which allows the user access to a server on a LAN.
logoff	This procedure terminates connection with a particular server.

TERM	DEFINITION
mainframe computer	A large-scale computer, normally supplied with peripherals and software from a single vendor, commonly a closed architecture. Also called host or central processing unit (CPU) or mainframe computer.
media	This refers to the method of transmission, such as infrared (IR), microwave, or the type of cable (coaxial, UTP, or fiber optic).
media access control (MAC)	Bottom sublayer of OSI data-link layer (layer 2). It represents the physical station address or the hardware address of the network board. A MAC address is unique for every station. Bridges rely on MAC addresses for operation.
message switching	A routing technique using a message store-and-forward system. No dedicated path is established. Rather, each message contains a destination address and is passed from source to destination through intermediate nodes. At each node, the entire message is received, stored briefly, and then passed on to the destination node.
micron	One-millionth of a meter.
microprocessor	A computer-on-a-chip or the CPU. This component determines and controls the computer's processing characteristics, power, and types of software programs it can process.
minicomputer	A small-scale of medium-scale computer, usually operated with interactive dumb terminals and often having an open architecture. Also called mini for short.

TERM	DEFINITION
modal dispersion	Dispersion resulting from the different transit lengths of different propagating modes in a multimode optical fiber.
modem	A contraction of the terms modulator and demodulator. It modulates computer signals from digital-to-analog, analog-to-digital, and digital-to-digital form, thus enabling data to travel over a telephone system.
mouse	A hand-held computer input device that generates the coordinates of a position indicator which appears on a computer monitor, and operates by being moved.
M-port	A single-attach connection at an fiber distributed data interface (FDDI) concentrator.
multimode fiber	A fiber optic cable wide enough to allow light to reflect internally at several different angles. Multimode can use a mix of light frequencies.
multiport bridge	A bridging device that connects more than two adjacent networks. Multiport bridges with a high internal bandwidth can simultaneously support full-speed communication on all ports.
network operating system	A program that manages resources across an entire LAN, such as remote file systems that are accessible by other workstations, the loading and execution of shared application programs, and I/O to shared network devices.
node	Any device connected to a network, such as a workstation or file server.

TERM	DEFINITION
open system	Interoperability solution in which a vendor makes products compliant with universally accepted standards. The development of the OSI model is a step towards standardization.
operating system	Software used to control the basic operation of a computer. It allows users to access files, run programs, use printers, etc.
packet switch connection	This connection provides a shared physical connection. A message is submitted to the network for delivery. The message is subdivided into specific size packets for transmission. This type of connection is not time sensitive. A virtual circuit which defines the logical connection is created.
peer-to-peer	A LAN that allows all LAN users to access data on other workstations.
peripheral device	Any equipment, distinct from the central processing unit, used to provide additional capabilities or process data for entry into or extraction from a computer.
peripherals	See peripheral device.
plenum	An open space, used for office air circulation, where cable can be run. Due to fire and noxious gas potentials, special safety cable must be used.
plenum rated cable	A cable that has a special coating or sheath which minimizes the release of noxious gases when exposed to flames or heat.
point-to-point link	Transmission of data between a single sender and receiver. A point-to-point link is a circuit connecting two stations to each other only, with no intermediary node.

TERM	DEFINITION
print server	The print server software accepts jobs from application programs running on client stations, stores them on a hard disk, and sends them to a printer when the job's turn occurs in the queue. Typically, the print server is in the file server however, it may be on any PC on the LAN.
protocol	In communications, a set of rules and regulations that govern transmitting and receiving of data. The means used to control the orderly exchange of information between stations on a data-link or on a data communications network or system, Also called line discipline.
random access memory	RAM, the working memory of the computer in which application programs and data can be stored and used by the CPU.
read only memory	ROM, an integrated circuit used for storing frequently used computer instructions and data. ROM is permanent memory because data is not erased when the power is turned off.
relay rack	A structure with standard mounting rails of 19.5 inches wide. It is used to mount electronic equipment.
remote access	The connection between a computer or terminal to any network service, over either a LAN, dial-up modem, or other communications technique.
remote bridge	Remote bridges operate in pairs, connecting the LAN cable segments using an intermediary inter-LAN link such as a leased telephone line.

TERM	DEFINITION
repeater	A device used to extend transmission ranges/distances by restoring signals to their original size or shape. Repeaters function at the physical layer of the OSI mode.
RG-58 A/U	Coaxial cable assembly used as "Ethernet" thinnet 50 ohm cable.
ring	A network in which every node has exactly two branches connected to it. The nodes are connected in series.
RJ-45	A modular connector with eight contacts, typically used in network connections of UTP cabling.
router	Devices that function at the network layer of the OSI model and are protocol specific. Routers direct packets generated between networks, thereby reducing network traffic.
routing table	Routing tables are used to determine the best path to send packets. Routers examine the source and destination addresses in the packet to determine where the packet came from and where it needs to be delivered. Cost and distance are also used in routing determination.
RS-232-C/D	A physical interface protocol (EIA RS-232-C/D), the mechanical interface is the 25-pin ISO 2110 connector. It is used for the interface between data terminal equipment and data communications equipment.

TERM	DEFINITION
RS-449	A physical interface protocol, EIA RS-449 was developed to attain improved performance over EIA RS-232-C. It enables longer cable distance, higher maximum data rates, and additional interface functions, for example, maintenance loopback testing. The interface was designed to be interoperable with RS-232 equipment. It uses a general purpose 37-pin connector (ISO 4902) for the basic interface and a separate 9-pin connector if a "secondary channel" operation is in use.
server	A high-speed computer in a LAN used to store programs or data files shared by the LAN users on the network or perform network management of the LAN. There are different types of servers (such as file, database, print, fax, and communications), each performing a specific activity for the LAN.
single-mode fiber	A small core diameter fiber which allows a single mode of light; light only travels along the axis of the fiber. It can be used over greater distances than MultiMate fiber.
software	A computer program or set of stored instructions and procedures held in some storage medium, such as read/write memory (RAM) that can be recalled or loaded in the computer for execution.
spread spectrum	Techniques that utilize signal frequency hopping at a rapid rate or that spread a transmitted signal across a range (band) of carrier frequencies.
star	A radial (starlike) configuration of communication-network nodes such that there is a direct path between each node and a central node that serves as a central distribution node.

TERM	DEFINITION
star coupler	A fiber optic coupler in which power at any input port is distributed to all output ports.
system memory	The part of a computer where programs and information are stored while they are being used.
T1	T-carrier designation for a channel rate of 1.544 megabits per second (Mbps).
T3	T-carrier designation for a channel rate of 44.736 Mbps.
tap	In cable-based LANs, a connection to the main transmission medium.
10Base2	A network conforming to the IEEE 802.3 local area network standard. The network is capable of carrying information at rates up to 10 Mbps over distances up to 185 meters (approximately 600 feet) using RG-58 coaxial cable.
10Base5	A network conforming to the IEEE 802.3 local area network standard. The network is capable of carrying information at rates up to 10 Mbps over distances up to 500 meters (approximately 1600 feet) using RG-8 coaxial cable.
10BaseF	The standard defined for Ethernet communication over fiber optic cable.
10BaseT	A network conforming to the IEEE 802.3 local area network standard. The network is capable of carrying information at rates up to 10 Mbps over distances of 100 meters (approximately 325 feet) using twistedpair cable.
terminals	Any device capable of sending or receiving data over a data communications channel.

TERM	DEFINITION
Terminate and Stay Resident	TSR is a unique application program that will stay in the computer’s memory even though it is not currently the program being used. It is also called memory resident. Many TSR programs can be instantly entered from another program by the use of a hot key.
thicknet	A type of coaxial cable used for a 10Base5 network. See 10Base5
thinnet	A type of coaxial cable used for a 10Base2 network. See 10Base2.
timesharing	A method of computer operation that allows several interactive terminals to use a computer and its facilities; although the terminals are actually served in sequence, the high-speed of the computer makes it appear as if all terminals were being served simultaneously.
token	That part of a packet used for network access on Token Ring LANs; the station that "owns" the token is the station that controls the transmission medium.
token-passing	An access method in which a special message (token) circulates among the network nodes, giving a node permission to transmit.
token-ring	The token-ring is described as a ring topology because data is passed from station to station until it returns to the starting point. The token-ring usually has a physical star topology.
topology	The architecture of a network, or the way circuits are connected to link the network nodes together.
transceiver	A single device that combines the functions of a transmitter and a receiver.

TERM	DEFINITION
trustee	The user is assigned rights to perform operations, such as read, write, create, and erase files in a directory. The user entrusted with these rights is called a trustee and the actual rights assigned are called trustee assignments.
V.35	International Telecommunication Union - Telecommunication Standardization Section (ITU-TSS) (formerly International Consultative Committee for Telephone and Telegraph (CCITT)) standard for connection and signaling.
watt	A unit of power, defined as the electrical work required to drive a current of 1 ampere across a potential of 1 volt.
workstation	A computer used to run programs and provide communication to the LAN.
X.25	An ITU-TSS protocol for packet switching networks.
ac	alternating current
ACSE	Association Control Service Element
AMDR	automatic message detail recording
AMMUS	Air Force Minicomputer Multi-User System
ANSI	American National Standards Institute
ASN.1	abstract syntax notation one
ATM	asynchronous transfer mode
AU	attachment unit interface
AWG	American Wire Gauge
AWSCEM	Army Wide Small Computer Equipment Maintenance
B-ISDN	Broadband-ISDN
BDF	building distribution frame
BER	bit error rate
BNC	bayonet connector
BOM	bill of materials
BPA	Blanket Purchase Agreement
bps	bits per second
BRI	basic rate interface
CAPR	Information capability request

TERM	DEFINITION
CCITT	formerly International Consultative Committee for Telephone and Telegraph, renamed ITU-TSS
CCL	Certified Components List
CDDI	copper distributed data interface
CD ROM	compact disk read-only memory
CLNS	Connectionless-Mode Network Service
Comm	communication
CONS	Connection-Mode Network Service
CNLP	connectionless network layer protocol
CPU	central processing unit
CSMA/CD	Carrier Sense Multiple Access/Collision Detection
CSU	channel service unit
CUITN	Common Users Installation Transport Network
DAC	discretionary access control
DARPA	Defense Advanced Research Projects Agency
dB	decibel
DCE	data communications equipment
DCID	Director Central Intelligence Directive
DDS	digital data service
DEC	Digital Equipment Corporation
DIAM	Defense Intelligence Agency Manual
DISN	Defense Information Systems Network
DoD	Department of Defense
DOIM	Director of Information Management
DOS	disk operating system
DS1	digital signal 1
DSN	Defense Switched Network
DSU	digital service unit
DTE	data terminal equipment
ECMA	European Computer Manufacturer’s Association
EIA	Electronics Industries Association
EIP	engineering installation plan
EISA	extended industry-standard architecture
EMI	electromagnetic interference
ESD	electrostatic discharge
FCC	Federal Communications Commission
FDDI	fiber distributed data interface
FIPS	Federal Information Processing Standard

TERM	DEFINITION
FO	fiber optic
FOIRL	Fiber Optic Inter-Repeater Link
FTAM	File Transfer, Access, and Management
Gbps	gigabits per second
GHz	gigahertz
GNMP	Government Network Management Profile
GOSIP	Government Open Systems Interconnection Profile
GUI	graphical user interface
HDLC	High-Level Data-Link Control
HP	Hewlett Packard
HVAC	heating, ventilation and air conditioning
IA	Implementation Agreement
IBM	International Business Machines Corporation
IDF	intermediate distribution frame
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IITS	Installation Information Transfer System
INIC	intelligent network interface card
I/O	input/output
IP	Internetwork Protocol
IPX	internetwork protocol exchange
IR	infrared
IRQ	interrupt request
ISDN	Integrated Services Digital Network
ISM	industrial, scientific, and medical
ISO	International Standards Organization
ITU-TSS	International Telecommunication Union - Telecommunication Standardization Sector
kbps	kilobits per second
khz km	kilohertz kilometer
LAN	local area network
LED	light emitting diode
LLC	logical link control
MAC	mandatory access control
MAC	media access control
MAU	medium attachment unit
Mbps	Megabits per second

TERM	DEFINITION
MB	Megabyte
MHS	message handling system
MHz	Megahertz
MMS	manufacturing message specification
Modem	modulator\demodulator
MOTIS	Message-Oriented Text Interexchange System
M-port	master-port
MS-DOS	Microsoft disk operating system
MTBF	mean time between failures
NCC	National Control Center
NACSIM	National Communications Security Information Memorandum
NCSC	National Computer Security Center
NDIS	Network Driver Interface Specification
NEC	National Electric Code
NetBIOS	Network Basic Input/Output System
NFPA	National Fire Protection Agency
NIC	network interface card
NIST	National Institute of Standards and Technology
nm	nanometer
NMS	network management system
NOS	network operating system
NRZ	non-return to zero
NSA	National Security Agency
OC	optical carrier
ODI	Open Data-Link Interface
OIW	Open Systems Implementor's Workshop
OLS	Optical Loss Set
OS	operating system
OSE	open systems environment
OSI	Open Systems Interconnection
OTDR	Optical Time Domain Reflectometer
PAD	packet assembler/disassembler
P/AR	peak-to-average ratio
PC	personal computer
PDN	packet data network
PDS	premises distribution system
PHY	physical layer protocol

TERM	DEFINITION
PLP	Packet Level Protocol
PMD	Physical Medium Dependent
PRI	primary rate interface
PVC	polyvinyl chloride
RAM	random access memory
RFI	radio frequency interference
RISC	Reduced instruction set computer
ROM	read-only memory
ROSE	Remote Operations Service Element
SIDPERS	Standard Installation/Division Personnel System
SMB	Server Message Block
SMC	Small Multiuser Computer
SMF	single-mode fiber
SMDS	switched multimegabit data service
SMT	station management
SNMP	Simple Network Management Protocol
SONET	synchronous optical network
S-port	slave-port
SSRC II	Standard Software Requirements Contract II
ST	snap twist
STP	shielded twisted-pair
TCP	Transmission Control Protocol
telco	telephone company
TIA	Telephone Industry Association
TMDE	test, measurement, and diagnostic equipment
TP	twisted-pair
TP4	transmission protocol-4
TPDDI	twisted-pair distributed data interface
TSB	Technical Systems Bulletin EIA/TIA
TSR	Terminate and Stay Resident
UHF	ultrahigh frequency
UL	Underwriters Laboratories
USAISEC	U.S. Army Information Systems Engineering Command
UPS	uninterruptible power
UTP	supply unshielded twisted-pair
WAN	wide area network